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(19) **United States**(12) **Patent Application Publication**
Scherzer(10) **Pub. No.: US 2021/0308077 A1**(43) **Pub. Date: Oct. 7, 2021**(54) **COMBINATIONS INCLUDING
BETA-ADRENORECEPTOR AGONISTS FOR
TREATMENT OF PARKINSON'S DISEASE
AND MOVEMENT DISORDERS***A61K 31/4704* (2006.01)*A61K 31/403* (2006.01)*A61K 31/166* (2006.01)*A61K 31/138* (2006.01)*A61K 31/4045* (2006.01)*A61K 31/5377* (2006.01)(71) Applicant: **The Brigham and Women's Hospital,
Inc.**, Boston, MA (US)(52) **U.S. Cl.**CPC *A61K 31/136* (2013.01); *A61P 25/16*(2018.01); *A61K 31/198* (2013.01); *A61K**31/137* (2013.01); *A61K 31/428* (2013.01);*A61K 31/5377* (2013.01); *A61K 31/403*(2013.01); *A61K 31/166* (2013.01); *A61K**31/138* (2013.01); *A61K 31/4045* (2013.01);*A61K 31/4704* (2013.01)(72) Inventor: **Clemens Scherzer**, Boston, MA (US)(21) Appl. No.: **16/606,534**(22) PCT Filed: **Apr. 20, 2018**(86) PCT No.: **PCT/US2018/028639**

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ABSTRACT**Related U.S. Application Data**

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Provided herein are methods of treating a subject who has a synucleinopathy (e.g., Parkinson's disease) that include: administering to a subject in need of such treatment therapeutically effective amounts of a β 2-adrenoreceptor agonist and at least one therapeutic agent selected from the group consisting of: a synucleinopathy therapeutic agent, a β 2-adrenoreceptor antagonist and a health supplement, wherein the health supplement is selected from the group consisting of caffeine, inosine, creatine, coenzyme Q10, vitamin E, and omega-3 fatty acids, to thereby treat Parkinson's disease in the subject.

Specification includes a Sequence Listing.

No.	Name	Class	Structure	FDA approved	Indication	Blood-brain penetrant
1.	Melaproterenol	β 2-Adrenoreceptor Agonist		Yes	Asthma	No
2.	Clenbuterol	β 2-Adrenoreceptor Agonist		No	Asthma	Yes
3.	Salbutamol	β 2-Adrenoreceptor Agonist		Yes	Asthma	Yes